[6450-01-P]

U.S. DEPARTMENT OF ENERGY

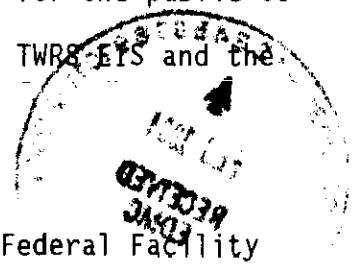
Notice of Intent To Prepare
Hanford Tank Waste Remediation System
Environmental Impact Statements,
Richland, Washington

AGENCY: U.S. Department of Energy

ACTION: Notice of Intent (NOI) to prepare two Environmental Impact Statements (EISs) for proposed actions at the Hanford Site, Richland, Washington. One EIS will address the proposed Tank Waste Remediation System (TWRS) activities, and the second will address the proposed construction of six new tanks for the storage of high-level radioactive waste as an interim action to the TWRS EIS.

SUMMARY: The U.S. Department of Energy (DOE) announces its intent to prepare two EISs pursuant to the *National Environmental Policy Act (NEPA) of 1969* (42 U.S.C. 4321 et seq.), in accordance with the Council on Environmental Quality (CEQ) regulations for implementing the procedural provisions of NEPA (40 CFR Parts 1500-1508) and the DOE implementing procedures (10 CFR Part 1021), and to conduct a series of public scoping meetings. It is intended that the TWRS EIS cover all TWRS activities that are ripe for decision. In addition, DOE proposes to prepare an EIS for the construction and operation of six new storage tanks as an interim action while the TWRS EIS is being

prepared, consistent with the provisions of 40 CFR 1506.1. The public scoping period being announced in this NOI provides an opportunity for the public to comment on the scope of issues to be addressed in both the TWRS EIS and the new tanks EIS.



The TWRS program is conducted in concert with the Hanford Federal Facility Agreement and Consent Order [also called the Tri-Party Agreement or TPA] among DOE, the U. S. Environmental Protection Agency (EPA) and the Washington State Department of Ecology (Ecology). The scope of the TWRS Program includes: resolution of high-level radioactive waste tank safety issues; management of high-level waste tank farm operations; upgrading the tank farm infrastructure; waste characterization; storage of wastes generated from Hanford cleanup activities; tank farm waste retrieval, conditioning (e.g., evaporation/ dilution), pretreatment (e.g., radionuclide separation), and immobilization (e.g., vitrification); construction of new high-level waste tanks; storage of immobilized high-activity waste; storage/disposal of immobilized low-activity waste; management of encapsulated strontium and cesium; and technology development.

DOE has identified the immediate need for additional interim high-level waste storage capacity to support the resolution of safety issues associated with "Watchlist" tanks as identified pursuant to "Safety Measures for Waste Tanks at Hanford Nuclear Reservation," Section 3137 of the *National Defense Authorization Act for Fiscal Year 1991*, P.L. 101-510. As an interim action to the TWRS EIS, the new tanks EIS will address the proposed construction and

operation of six new underground storage tanks to support the resolution of safety issues concerning the high-level waste in existing tanks.

In March 1993, DOE completed a rebaselining of the TWRS program to ensure that the program to remediate Hanford tank wastes is comprehensive, integrated and technically sound. Subsequently, the TPA was renegotiated and revised. Public meetings on the revised TPA were held in several locations statewide during November 1993. The revised TPA is expected to be signed by all parties on January 25, 1994.

The proposed TWRS program actions constitute a major Federal action significantly affecting the environment and, accordingly, DOE has developed a strategy for providing the appropriate NEPA reviews for the actions. The strategy consists of a TWRS EIS for the overall proposed action to treat, store, and dispose of Hanford's stored high-level tank waste, and an EIS for the new tanks as an interim action. In addition, separate NEPA reviews for other interim actions may need to be initiated during preparation of the TWRS EIS and the new tanks EIS. Such interim actions would include activities needed to maintain the current waste management system; collect data and resolve urgent pretreatment issues; and protect both the workers, the public and the environment. The TWRS EIS will address the cumulative impacts of the TWRS program including the new tanks and other interim actions.

In December 1987 the DOE completed the "*Final Environmental Impact Statement on the Disposal of Hanford Defense High-Level, Transuranic and Tank Wastes*" (*HDW EIS*), which addressed the environmental consequences of alternatives for

disposal of wastes generated during national defense activities and stored at the Hanford site. A Record of Decision (ROD) issued in April 1988 has formed the basis for DOE's programs to manage these wastes at the Hanford site.

In the HDW EIS ROD, DOE deferred final disposal decisions for the tank wastes contained in single-shell tanks (SSTs), pending further evaluations in a supplemental EIS. However, to meet regulatory requirements, DOE's current planning basis is to retrieve SST waste, and to integrate double-shell tank (DST) and SST waste management activities leading to final disposal. Because DOE now proposes to integrate SST and DST waste management programs, the TWRS EIS described in this NOI will replace the previously planned supplement to the HDW EIS.

The TWRS EIS will address the DOE's proposal for the management, treatment, storage, and disposal of the waste currently stored in the existing 149 SSTs and 28 DSTs and other wastes to be generated during future decontamination and decommissioning activities at Hanford. DOE recognizes that removal of waste from the tanks may trigger Resource Conservation and Recovery Act (RCRA) treatment and disposal requirements to complete closure of the tanks. However, the impacts of tank closure cannot be meaningfully evaluated at this time. DOE will conduct an appropriate NEPA review, such as an EIS to support tank closure, in the future.

The planned interim action EIS will address the construction of six new tanks and associated new transfer lines, and the tank operations. For the purposes of this interim action EIS, operations considered would be limited to the

retrieval, pH adjustment or alkalinity control, and storage of wastes from the Watchlist safety tanks. The primary focus of the EIS would be the resolution of safety issues related to the three tanks that are on the Watchlist because of hydrogen generation (241-SY-101, 241-SY-103 and 241-AN-104), but the tanks may also be used to alleviate safety concerns in other Watchlist tanks (50 tanks are currently on the Watchlist). Further decisions regarding the retrieval, treatment and disposal of wastes from the Watchlist tanks will be the subject of the TWRS EIS.

DATES: DOE invites all interested parties to submit written comments or suggestions concerning the scope of the issues to be addressed, alternatives to be analyzed, and the environmental impacts to be assessed in the TWRS EIS and the new tanks EIS, during a 45-day comment period ending [Insert date 45 days from date of publication]. The public is also invited to attend scoping meetings in which oral comments will be received on the proposed TWRS EIS and the new tanks EIS. Oral and written comments will be considered equally in preparation of the EISs. Written comments must be postmarked by [Insert date 45 days from date of publication]. Comments postmarked after that date will be considered to the extent practicable. Oral and written comments will be received at public scoping meetings to be held on the dates and at the locations given below:

Richland, Washington	February 14, 1994	Hanford House - Red Lion 802 George Washington Way Richland, WA 99352
Hood River, Oregon	February 16, 1994	The Hood River Inn/Best Western 1108 East Marina Way Hood River, OR 97031
Portland, Oregon	February 17, 1994	Bonneville Power Administration Auditorium 911 N.E. 11th Avenue Portland, OR 97204
Seattle, Washington	February 22, 1994	The Mountaineer's 300 Third Ave. West Seattle, WA 98105
Spokane, Washington	February 24, 1994	Spokane Convention Center 334 West Spokane Falls Blvd. Spokane, WA 99201

Each scoping session will begin with a welcome and introduction of DOE officials, followed by short presentations by DOE officials on the EIS process, the Hanford TWRS program and the proposed interim actions. Individuals and organization spokespersons will then have an opportunity to present oral comments to DOE representatives. The agenda will be repeated twice a day at each location, in afternoon and evening sessions. The hours for the sessions are: 1:00 PM to 4:30 PM and 6:30 PM to 10:00 PM.

Requests to speak at these meetings may be made by calling the toll-free telephone number, 1-800-500-1660, by 3 PM the day before the meeting or by writing to Donald Alexander (see ADDRESSES, below).

The meetings will be chaired by a presiding officer but will not be conducted as evidentiary hearings; speakers will not be cross-examined although the

presiding officer and DOE representatives present may ask clarifying questions. Individuals requesting to speak on behalf of an organization must identify the organization. A 5-minute limit will be imposed on each individual speaker except that a speaker representing an organization (one per organization) will be given a 10-minute limit. These limits are to ensure that all who wish to speak have an opportunity to do so. Comments will be recorded by a court reporter and will become part of the scoping meeting record.

Persons who have not submitted a request to speak in advance of the scoping meetings may register at the meetings and will be called on to speak on a first-come first-served basis as time permits. Written comments will also be accepted at the meetings, and speakers are encouraged to provide written versions of their oral comments for the record.

DOE will review scoping comments to determine their applicability to the two proposed EISs. Records of, and responses to, the scoping comments will be provided as appropriate in either the Implementation Plan (IP) for the TWRS EIS or the IP for the new tanks EIS. The IPs will provide guidance for preparation of the TWRS and new tanks EISs and establish their scopes and content (10 CFR 1021.312). The IPs will be issued prior to the release of the draft EISs and copies will be available for inspection in public reading room locations to be announced.

ADDRESSES: Written comments on the scope of the TWRS EIS and the new tanks EIS, questions concerning the tank waste program, requests for speaking times,

and requests for copies of the IPs and/or the Draft EISs (DEISs) should be directed to the designated contact below. If any additional DEISs are prepared for other interim actions, their availability will be announced in the Federal Register and opportunity will be provided for public review and comment as required by CEQ and DOE regulations. Any interim action DEISs may also be obtained from the designated contact below.

FOR FURTHER INFORMATION CONTACT:

Donald H. Alexander
Attn: Scoping Comments
U.S. Department of Energy
Post Office Box 550
Richland, WA 99352
Telephone: 509-372-2453 or 1-800-500-1660

For information on the DOE NEPA process, contact:

Carol M. Borgstrom, Director
Office of NEPA Oversight (EH-25)
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585
Telephone: 202-586-4600 or leave a message at 1-800-472-2756

SUPPLEMENTARY INFORMATION:

Background

The Federal government created the Hanford Site, near Richland, Washington, in 1943, as part of the Manhattan Project, to produce plutonium for national defense. Metallic uranium fuel was irradiated in nuclear reactors and then

the fuel was chemically processed to recover plutonium. Plutonium production at the Hanford Site stopped in 1988.

Processing of reactor fuel and other waste management activities created a wide variety of radioactive wastes, including high-level wastes that have been stored in underground tanks. The high-level wastes came from many different processes and sources, and they have been processed and transferred among tanks so that chemical and physical characteristics of the wastes vary greatly among tanks and even within individual tanks. Typically, the tank wastes are highly radioactive and chemically hazardous.

SSTs have one steel wall, surrounded by reinforced concrete; they were constructed between 1944 and 1964 and received waste until 1980. The capacity of most SSTs is 0.5 million gallons (Mgal) to 1.0 Mgal. The tanks are situated below grade and are covered with 6 to 10 feet of earth.

Waste in SSTs consists of liquids, sludges, and saltcake, i.e., crusty solids made of crystallized salts. Some of the liquids in the SSTs are contained in the pores of the sludges and saltcake, and some liquids are free standing in the tanks.

There are 149 SSTs storing about 36 Mgal of waste. This waste is comprised of approximately 0.6 Mgal of free-standing liquid, 23.2 Mgal of saltcake, and 12.5 Mgal of sludge. About half of the SSTs have leaked or are assumed to have leaked. Approximately 0.6 to 0.9 Mgal of waste has leaked or spilled

into the nearby soil. Over the years, much of the liquid stored in SSTs has evaporated or been pumped to DSTs.

There are 28 one Mgal DSTs at Hanford. The DSTs were constructed between 1970 and 1986. Most of these tanks are designed for up to 50 years of storage. DSTs have a second steel containment wall. The space between the two walls is monitored for leaks. DOE has used the DSTs since 1970 and none has been known to leak. The DSTs are used to treat and store a variety of liquid radioactive wastes from the SSTs and from various Hanford Site processes. The wastes are stored in tanks based upon composition, level of radioactivity, or origin. The DSTs now contain about 25 Mgal of waste.

In the 1960s and 1970s, radioactive strontium and cesium were extracted from wastes in some SSTs. The strontium and cesium were converted to salt forms and placed in double-walled capsules. Most of the 610 strontium capsules and 1323 cesium capsules are stored at Hanford. Some capsules were shipped offsite for beneficial use as heat or radiation sources. Because the capsules were only leased from DOE, it is anticipated that they will be returned to Hanford.

In the April 1988 HDW EIS ROD, DOE decided to proceed with preparing the DST waste for final disposal because it was readily retrievable. Wastes were to be processed in a pretreatment facility (planned to be the Hanford B-Plant and AR-Vault) to separate DST waste into two portions. The larger portion would be low activity waste, and a much smaller portion would be highly radioactive. The low activity waste was to be mixed with a cement-like material to form

grout. The grout was to be poured into large, lined, concrete, near-surface, underground vaults where it would solidify.

The high activity waste fraction was to be made into a borosilicate glass and poured into stainless-steel canisters (approximately 0.6 m diameter by 3 m long) at the proposed Hanford Waste Vitrification Plant (HWVP). The canisters were to be stored there until a geologic repository was ready to receive this waste.

Existing and future DST wastes were to be characterized for hazardous chemical constituents as well as other constituents that might affect glass or grout formulations before processing. This characterization would also help ensure that proper treatment, in accordance with hazardous waste regulations, occurred before disposal of the waste.

The HDW EIS ROD also called for storage of cesium and strontium capsules to continue until a geologic repository is ready to receive this waste for disposal. Before shipment to the repository, the capsules would be packaged to meet repository acceptance criteria.

In the HDW EIS ROD, DOE decided to conduct additional development and evaluation before making decisions on final disposal of SST wastes. This development and evaluation effort was to focus both on methods to retrieve and process SST wastes for disposal and to stabilize and isolate the wastes near-surface. SST waste would continue to be stored and monitored. Before a

decision on the final disposal of the wastes could be made, the alternatives were to be analyzed in a supplement to the HDW EIS.

Several significant changes have occurred subsequent to the HDW EIS. These include the identification of significant waste tank safety issues; the DOE, EPA and Ecology signing the TPA; the elimination of B-Plant from consideration as a waste pretreatment facility; the delay of the HWVP; and the proposal to treat SST waste with DST waste. These changes resulted in DOE's proposal to integrate all Hanford tank waste remediation efforts. As a result, resolving waste tank safety issues, planning for SST waste retrieval, and developing pretreatment facilities have become major elements of the proposed Hanford tank waste remediation program.

PURPOSE AND NEED FOR AGENCY ACTION:

DOE needs to take action to treat, store, and dispose of Hanford's stored high-level tank waste and encapsulated strontium and cesium and to reduce the overall potential risks posed by the tank wastes. This entails addressing four major programmatic elements: retrieval, pretreatment, immobilization, and storage/disposal. More specifically, these programmatic elements include:

- Retrieval of SST and DST wastes
- Conditioning (e.g., evaporation/dilution) of wastes
- Waste pretreatment
- New infrastructure such as facilities, tanks, and transfer lines
- Production of a stabilized high-activity waste form

- Interim storage for the stabilized high-activity waste form
- Production and disposal of a stabilized low-activity waste form
- Management of encapsulated strontium and cesium inventory

DOE also needs to address closure of tanks (including disposal of tanks, piping, ancillary facilities, and contaminated soil). Although tank closure is included in the TPA, closure is not included in the proposed action for the TWRS EIS because the impacts of tank closure cannot be meaningfully evaluated at this time. DOE will conduct an appropriate NEPA review, such as preparing a tank closure EIS, in the future.

TWRS EIS ALTERNATIVES:

A number of alternatives can be constructed from the range of options available for the four major subcomponents of the TWRS, which are retrieval, pretreatment, immobilization and storage/disposal. Combinations of these options comprise the range of reasonable alternatives currently envisioned for TWRS. The TPA establishes one specific case within the range of alternatives to be considered in the TWRS EIS. The TWRS EIS will also evaluate a number of other alternatives constructed from the range of options described for the four major subcomponents of the TWRS and a no-action alternative in order to adequately evaluate the full range of potential environmental impacts.

TPA Preferred Alternative: On March 31, 1993, DOE, EPA, and Ecology agreed to enter into formal negotiations on matters relating to Hanford tank waste remediation, environmental restoration activities, cost control, and

implementation and administration of the Hanford Federal Facility Agreement and Consent Order. The negotiations were concluded in September 1993, with tentative agreement on all matters under negotiation. The revised TPA received public review during November 1993, and the TPA was scheduled to be signed by the three parties on January 25, 1994. The full TPA covers subjects outside the purview of the TWRS program. The elements of the TPA which are within the scope of the TWRS program constitute elements of the preferred alternative for purposes of the TWRS EIS. Accordingly, the TPA preferred alternative consists of the following activities:

- Upgrading the infrastructure of the high-level waste tank farms to provide improved facility management and operation.
- Characterization of the wastes in all 177 SSTs and DSTs to facilitate treatment, immobilization and disposal.
- Construction and operation of additional DSTs (beyond the six tanks proposed in the interim action EIS noticed here) as necessary to support waste management and disposal.
- Stabilization of SST waste by removing and storing the pumpable liquids in DSTs, thus reducing the potential for leaks to the surrounding soil.
- Retrieval of the waste from SSTs and DSTs with priority on the SSTs. The retrieval criterion is removal of 99% of the waste from all SSTs on a tank-by-tank basis.
- Construction and operation of a waste pretreatment facility to treat the tank waste and to prepare the low-activity fraction for final processing. The high-activity fraction of the waste would

be stored pending final processing. Separate complexes would be constructed to house enhanced sludge washing and cesium and strontium ion exchange processes. An evaporator would be included in the low-activity waste pretreatment complex. These complexes could be stand-alone facilities, a set of distributed facilities, or part of a central processing complex.

- Construction and operation of a low-activity waste vitrification plant of appropriate capacity. Bounding analysis may be used if definitive designs are not available. DOE would maintain in a standby condition the capability to restart the grout facility if its operation is necessary before new DSTs are available to provide tank space to resolve safety issues.
- Storage/disposal of the vitrified low-activity waste on-site at Hanford.
- Construction and operation of a high-activity waste vitrification plant of appropriate capacity. Bounding analysis may be used if definitive designs are not available.
- Construction and operation of storage for vitrified high-activity waste until a repository for permanent disposal is available.
- Existing cesium and strontium capsules would be either over-packed and stored, or dissolved and blended with the high-activity vitrification waste stream.

Additional Alternatives: Additional alternatives will be constructed from the range of options described below in order to adequately evaluate the full range of potential environmental impacts.

Options for Retrieval:

Waste can be retrieved by hydraulic sluicing, pneumatic or mechanical systems. Hydraulic sluicing injects liquid into the tank to dislodge and mobilize or dissolve the waste. Pumps transfer the liquid and slurry out of the tank. Mechanical or pneumatic systems are placed in contact with the waste. This equipment conditions the waste and transfers it out of the tank. The retrieved waste is transferred to the pretreatment process.

Options for Pretreatment:

Pretreatment is performed to separate the waste into its high-activity and low-activity components. One option is to perform no pretreatment. Another option is to limit the volume of waste going to a geologic repository by pretreating waste to accomplish some level of high- and low-activity waste separation. Two bounding alternatives for pretreating tank wastes have been identified, corresponding to the reasonable limits of waste pretreatment (such as evaporation, acid digestion, nuclide separation, ion exchange) to concentrate the radionuclides in a smaller volume. For purposes of this discussion, these bounds are referred to as "minimal" and "extensive" pretreatment. The pretreatment bounds may also influence the relative volumes of high- and low-activity wastes to be stabilized and stored/disposed of. The pretreated waste would be transferred to the waste immobilization process.

Minimal pretreatment would use sludge washing to separate the waste into a smaller volume fraction of high-activity waste (containing the

majority of radionuclide activity), and a larger volume fraction of low-activity waste. The low-activity waste might be subjected to an evaporation step to reduce the volume resulting from the sludge washing process.

Extensive pretreatment would use advanced solvent extraction methods to provide the maximum level of radionuclide partitioning. Hazardous nitrates, metals, and other selected chemicals would be removed from the low-activity waste stream, and the volume of the high-activity waste fraction would be minimized.

Options for Immobilization:

The immobilization would stabilize the waste coming from the pretreatment process. Both the low-activity waste stream and the high-activity waste stream would be stabilized. The stabilized waste would be transferred to storage or disposal.

High-activity waste stabilization options include vitrification, ceramic forms and calcination. After stabilizing, the high-activity waste fraction would comply with any likely waste form criteria for geologic repository acceptance and transportation.

Low-activity waste stabilization options include vitrification, glass cullet in a sulfur cement and cement polymer-based grout.

The current plan provides that the encapsulated cesium and strontium would meet the waste form criteria for geologic repository acceptance and transportation. The first option is overpacking the capsules. If the repository waste form criteria cannot be achieved by overpacking, the capsules would be stabilized the same as the high-activity waste fraction above (e.g., vitrification, ceramic or calcination).

Options for Disposal/Storage:

The disposal options include disposal onsite, disposal offsite and interim storage pending disposal.

High-activity waste disposal options include emplacement of the stabilized waste in an offsite geologic repository or in interim storage onsite pending availability of an offsite geologic repository.

Low-activity waste disposal options depend on the stabilized waste form and include: burial in onsite landfills in containers; burial in onsite vaults; burial onsite in steel culverts with liners and leachate collection; and soil melt slurry injection to a landfill. Some of these options would accommodate retrievability if desired.

No Action Alternative: The no action alternative for TWRS would be continued storage of tank wastes and encapsulated cesium and strontium without preparation for disposal. However, the no action alternative includes

continued maintenance, monitoring, and safety upgrades. No action also includes maintaining the low-activity waste grouting facility in a standby condition in case its operation is necessary before new DSTs are available to provide tank space to resolve safety issues. The no-disposal action alternative was analyzed in the HDW EIS and the DOE intends to update the HDW EIS analyses in the TWRS EIS. The no action alternative is included to comply with the CEQ regulations (40 CFR 1502.14[d]) for consideration of a no action alternative.

INTERIM ACTIONS:

DOE plans to complete the TWRS EIS by approximately October 1996. DOE may need to undertake interim actions while the TWRS EIS is being prepared. Any interim actions undertaken would have to be independently justified because, for example, they are activities needed to maintain the current waste management system; collect data and resolve urgent pretreatment issues; or protect workers, the public and the environment. Any interim actions would be actions on which decisions were needed prior to the scheduled completion of the TWRS EIS. None of the interim actions would prejudice the ultimate decision to be made on the basis of the TWRS EIS because they would be needed regardless of which alternatives are selected in that EIS. As described previously in this notice, DOE has already identified the construction of new tank capacity needed to resolve tank safety issues (identified in the TPA as the Multi-function Waste Tank Facility) as an interim action, and is planning to prepare a separate EIS for that project. DOE plans to complete the new tanks EIS by September 1994 to support a near-term TPA milestone.

Other interim actions may include system and infrastructure upgrades, replacement of the cross-site transfer system, waste characterization, technology development and demonstration activities including a compact processing unit, and initial retrieval or pretreatment and immobilization activities. These activities, if undertaken, would also require preparation of independent NEPA reviews while the TWRS EIS is in preparation.

PROPOSED ACTIONS, NEW TANKS EIS:

The proposed new tanks would provide waste storage space needed for resolution of tank safety issues and would not be used for storage of newly generated high-level waste. The new tanks would be improved versions of the existing DSTs. Each tank would be constructed of double shell stainless steel surrounded by a concrete liner, and would have a 1 million gallon capacity. All tanks would have leak detection monitoring systems and filtered ventilation systems. The EIS will address the construction of new tanks and associated new transfer lines, and the tank operations. For the purposes of this interim action EIS, operations considered would be limited to the retrieval, pH adjustment or alkalinity control, and storage of wastes from the Watchlist safety tanks. The primary focus of the EIS would be the resolution of safety issues related to the three tanks that are on the Watchlist because of hydrogen generation (241-SY-101, 241-SY-103 and 241-AN-104), but the tanks may also be used to alleviate safety concerns in other Watchlist tanks (50 tanks are currently on the Watchlist). Further decisions regarding the disposition of these wastes will be addressed by the TWRS EIS.

ALTERNATIVES, NEW TANKS EIS:

The new tanks EIS will evaluate all reasonable alternatives. Alternatives which have been tentatively identified for possible evaluation in this EIS include but are not limited to the following:

TPA Preferred Alternative: The TPA preferred alternative is to construct two DSTs in the 200 West Area by 1997 and four DSTs in the 200 East Area by 1998. These new tanks would be utilized to store wastes retrieved from Watchlist tanks in order to resolve tank safety issues. Resolution of safety issues for these Watchlist tanks may include up to a three-to-one dilution of the wastes with water and/or caustic solutions. In order to achieve this dilution a combination of new and existing tank space would be used.

Construct fewer tanks: Under this alternative, the need for additional tanks would be reduced using alternatives to retrieval for tank safety issue mitigation. An example would be the use of mixer pumps for mitigating the flammable gas safety issue.

No Action: The EIS will also address the no action alternative, under which no additional underground high-level waste storage tanks would be built in the near term. No action would leave the safety issues for the Watchlist safety tanks unresolved.

PRELIMINARY IDENTIFICATION OF ENVIRONMENTAL ISSUES:

The issues listed below have been tentatively identified for analysis in both EISs. This list is presented to facilitate public comment on the scope of the EISs. It is not intended to be all-inclusive or to predetermine the potential impacts of any of the alternatives.

1) Potential effects on the public and on-site workers from releases of radiological and nonradiological materials during normal operations and from reasonably postulated accidents;

2) Pollution prevention and waste minimization;

3) Potential effects on air and water quality and other environmental consequences of normal operations and potential accidents;

4) Potential cumulative effects of operations at the Hanford Site, including relevant impacts from other past, present, and reasonably foreseeable activities at the site;

5) Potential effects on endangered species, floodplain/wetlands, archaeological/historical sites;

6) Potential effects on future decommissioning decisions;

7) Effects from normal transportation and postulated transportation accidents;

8) Potential socioeconomic impacts on surrounding communities;

9) Unavoidable adverse environmental effects;

10) Short-term uses of the environment versus long-term productivity;

11) Potential irretrievable and irreversible commitment of resources.

REGULATORY FRAMEWORK:

The TPA sets milestones to achieve coordinated cleanup of the Hanford Site and provides a legal and procedural framework for regulatory compliance during cleanup. During the development of both EISs, DOE intends to fully comply with the TPA, as modified by the change control process.

Federal and State laws that are of major importance to waste management activities at Hanford include the Atomic Energy Act of 1954; RCRA; the Washington State Hazardous Waste Management Act, Chapter 70.105 RCW; and the Federal Facility Compliance Act of 1992. The Atomic Energy Act requires the management, processing, and use of radioactive materials in a manner that protects workers, public health, and the environment. RCRA and the Washington State Hazardous Waste Management Act establish requirements for management of hazardous waste, including generation, treatment, storage, transportation, and

disposal. RCRA also requires cleanup of hazardous waste releases from past and present operations when the releases pose a threat to human health or the environment.

RELATED NEPA DOCUMENTATION:

NEPA documents that have been or are being prepared for activities at Hanford include, but are not limited to, the following:

1) Final Environmental Impact Statement for Disposal of Hanford Defense High-Level Transuranic and Tank Wastes, Hanford Site, Richland Washington, DOE/EIS-0113, Vol. 1, 2, 3, 4, and 5, December 1987. U.S. Department of Energy, Washington, D.C. As discussed in the Background section of this notice, the HDW EIS analyzed the impacts of Hanford tank waste treatment and disposal.

2) Final Environmental Statement for Waste Management Operations, Hanford Reservation, Richland Washington, ERDA-1538, Vol.1 and 2, 1975. U.S. Energy Research and Development Administration, Washington, D.C. This EIS analyzed the environmental impacts of Hanford Site waste management operations.

3) Hanford Remedial Action-Environmental Impact Statement. The HRA-EIS will assess the potential environmental consequences of alternatives for conducting a remedial action program at the Hanford Site for inactive hazardous, high- and low-level radioactive, transuranic and mixed-waste

sites. DOE published a NOI to prepare the HRA-EIS on August 21, 1992 (47 FR 37959-37964) and intends to issue the draft HRA-EIS in 1994.

4) Programmatic Environmental Impact Statement for Environmental Restoration and Waste Management. The EM-PEIS will analyze the complex-wide environmental restoration and waste management issues and alternatives. DOE published the NOI to prepare the EM-PEIS on October 22, 1990 (55 FR 42633) and issued the Implementation Plan on December 23, 1993. The TWRS EIS will discuss its relationship to the EM-PEIS and how issues addressed in the EM-PEIS could affect the alternatives analyzed in the TWRS EIS.

5) Programmatic Environmental Impact Statement for Reconfiguration of the Nuclear Weapons Complex (DP-PEIS). The DP-PEIS will analyze long-term reconfiguration strategies and evaluate those strategies against the consequences of maintaining existing defense production facilities. DOE published an Implementation Plan in February 1992. In July 1993, DOE published a revised NOI and intends to issue a revised Implementation Plan based on that NOI.

6) Tank Safety Environmental Assessments. DOE has completed eight environmental assessments and issued corresponding findings of no significant impact for activities to sample and characterize tank wastes or to modify tank equipment to improve safety conditions.

7) Stabilization Operations at the Plutonium Finishing Plant. In September 1993, DOE announced plans to prepare an EA for this proposed action and invited public comments on the scope. On the basis of comments, including those received at four public meetings, DOE is considering whether to prepare an EIS instead. Alternatives under consideration may generate liquid high-level wastes requiring storage in the Hanford tank farm.

Issued in Washington, D.C., this 25th day of January, 1994.

Peter N. Brush
Acting Assistant Secretary
Environment, Safety and Health